

**Amendments to the Claims**

This listing of claims replaces all prior versions and listings of claims in the application. In the Office communication mailed November 29, 2006, the Examiner asserts that new claims 21-35 are directed to non-elected subject matter and are distinct from currently canceled claims 1-10 which were the object of Office Action mailed May 18, 2006. In order to be fully responsive, new claims 36-46 are presented, which are the same as or indistinct from canceled claims 1-10. Similarly to canceled claims 1-10, new claims 36-43 are directed to a biosensor and simulation system and method for using the same. Furthermore, independent claim 36 and 40 (canceled claims 1 and 6) incorporate embodiments encompassed by canceled claims 3 and 8.

**Claims:**

1. – 35. (Canceled)

36. **(New)** Integrated biosensor and simulation system comprising: a sensor for sensing a biological target to generate a signal; and a simulator for using the signal and a model of the target to generate a therapeutic or diagnostic output; and wherein said sensor is reconfigurable by said simulator.
37. **(New)** The system of claim 36 wherein: the sensor senses a food material for consumption by the biological target to generate a second signal, the simulator further using the second signal to generate the therapeutic or diagnostic output.
38. **(New)** The system of claim 36 wherein: the simulator generates the output according to a regulatory condition.
39. **(New)** The system of claim 36 wherein: the sensor couples to the simulator via a programmable switch.

40. **(New)** Automated sensor and simulation method comprising the steps of: sensing a biological target to generate a signal; simulating using the signal and a model of the target to generate a therapeutic or diagnostic output; and wherein said simulator reconfigures said sensor.
41. **(New)** The method of claim 40 wherein: the sensor senses a food material for consumption by the biological target to generate a second signal, the simulator further using the second signal to generate the therapeutic or diagnostic output.
42. **(New)** The method of claim 40 wherein: the simulator generates the output according to a regulatory condition.
43. **(New)** The method of claim 40 wherein: the sensor couples to the simulator via a programmable switch.